Author index to volume 37

Ai, R., see Marks 37 (1991) 90
Allard, L.F., A.K. Datye, T.A. Nolan, S.L. Mahan and R.T. Paine, High-resolution electron microscopy of BN on MgO: a model ceramic–ceramic interface 37 (1991) 153
Allen, C.W., see Bradley 37 (1991) vii
Allen, C.W., see Smith 37 (1991) 279

Bai, G., see Gao 37 (1991) 326
Bentley, J., see Wang 37 (1991) 39
Bentley, J., see Wang 37 (1991) 103
Bonevich, J.E., see Marks 37 (1991) 90
Bradley, S.A., W.E. King and C.W. Allen, Foreword to Frontiers of Electron Microscopy in Materials Science 37 (1991) vii
Bradley, S.A. and W.M. Targos, Analytical electron microscopy of catalytic materials 37 (1991) 210
Buckett, M.I., see Marks 37 (1991) 90

Chang, H.L.M., see Gao 37 (1991) 326
Cheng, C.C., see Erdemir 37 (1991) 286
Colliex, C., see Mory 37 (1991) 191
Cowley, J.M., see Liu 37 (1991) 50

Dahmen, U., see Thangaraj 37 (1991) 362
Danyluk, S., D.S. Park and M. McNallan, Scanning electron microscopy of tribochemical films on Si_3N_4 to H_2O at high temperatures 37 (1991) 239
Datye, A.K., see Allard 37 (1991) 153
Davis, R.F., see More 37 (1991) 263
Disko, M.M., M.J. Luton and H. Shuman, Energy-loss near-edge fine structure and compositional profiles of cryomilled oxide-dispersion-strengthened aluminum 37 (1991) 202
Dunn, D., see Marks 37 (1991) 90

Erdemir, A. and C.C. Cheng, Cross-sectional transmission electron microscopy study of phase transformations at TiN film/steel substrate interfaces 37 (1991) 286

Fraundorf, P. and K. Pollack, Algorithms for Bayesian background-subtracted Fourier darkfield imaging 37 (1991) 72
Fraundorf, P. and J. Tentschert, The instrument response function in air-based scanning tunneling microscopy 37 (1991) 125
Fraundorf, P., see Schwartz 37 (1991) 310

Gao, Y., K.L. Merkle, G. Bai, H.L.M. Chang and D.J. Lam, [001] tilt grain boundaries in $YBa_2Cu_3O_{7-x}$ thin films 37 (1991) 326

Hackney, S.A. and W.W. Milligan, A new in situ technique for studying deformation and fracture in thin film ductile/brittle laminates 37 (1991) 79
Hackney, S.A., see Lillo 37 (1991) 294
Hirsch, P.B., Frontiers of electron microscopy in materials science 37 (1991) 1

Jacobi, M., see Marks 37 (1991) 90
Jennings, H.M., see Lange 37 (1991) 234
Jesson, D.E., see Pennycook 37 (1991) 14
Joy, D.C., The theory and practice of high-resolution scanning electron microscopy 37 (1991) 216

Kim, H.S., see Sheinin 37 (1991) 116
Kim, Y.J. and W.M. Kriven, TEM characterization of modulated microstructures in $CaO–Dy_2O_3$ solid solutions 37 (1991) 351
King, W.E., see Bradley 37 (1991) vii
Knauss, D. and W. Mader, Chemical composition and lattice relaxations at diffusion-bonded Nb/Al_2O_3 interface 37 (1991) 247
Koester, D.A., see More 37 (1991) 263
Kohl, H., see Mory 37 (1991) 191
Kriven, W.M., see Popoola 37 (1991) 318
Kriven, W.M., see Kim 37 (1991) 351

Lam, D.J., see Gao 37 (1991) 326
Lange, D.A., K. Sujata and H.M. Jennings, Observations of wet cement using electron microscopy 37 (1991) 234
Li, Z.G., see Smith 37 (1991) 169
Lillo, T.M., S.A. Hackney and M.R. Plichta, On the origins of ghost boundaries during in situ strain-induced grain-boundary migration 37 (1991) 294
Liu, J. and J.M. Cowley, Imaging with high-angle scattered electrons and secondary electrons in the STEM 37 (1991) 50
Lu, P., see Smith 37 (1991) 169
Luton, M.J., see Disko 37 (1991) 202
Luzzi, D.E., High-resolution electron microscopy observations of faceted grain boundaries and twins in bismuth-doped copper 37 (1991) 180

Elsevier Science Publishers B.V. (North-Holland)

Mahan, S.L., see Allard 37 (1991) 153
Marks, L.D., R. Ai, J.E. Bonevich, M.I. Buckett, D. Dunn, J.P. Zhang, M. Jacobi and P.C. Stair, UHV microscopy of surfaces 37 (1991) 90
McCartney, M.R., see Smith 37 (1991) 169
McNallan, M., see Danyluk 37 (1991) 239
Merkle, K.L., High-resolution electron microscopy of interfaces in fcc materials 37 (1991) 130
Merkle, K.L., see Gao 37 (1991) 326
Milligan, W.W., see Hackney 37 (1991) 79
Moodenbaugh, A.R., see Zhu 37 (1991) 341
More, K.L., D.A. Koester and R.F. Davis, Microstructural characterization of a creep-deformed SiC whisker-reinforced Si_3N_4 37 (1991) 263
Mory, C., H. Kohl, M. Tencé and C. Colliex, Experimental investigation of the ultimate EELS spatial resolution 37 (1991) 191

Nolan, T.A., see Allard 37 (1991) 153

Paine, R.T., see Allard 37 (1991) 153
Park, D.S., see Danyluk 37 (1991) 239
Pennycook, S.J. and D.E. Jesson, High-resolution Z-contrast imaging of crystals 37 (1991) 14
Plichta, M.R., see Lillo 37 (1991) 294
Pollack, K., see Fraundorf 37 (1991) 72
Popoola, O., W.M. Kriven and J.F. Young, High-resolution electron microscopy and microchemical characterization of a polyvinyl alcohol acetate/calcium aluminate composite (macro-defect-free cement) 37 (1991) 318

Sastry, S.M.L., see Schwartz 37 (1991) 310
Schwartz, D.S., P. Fraundorf and S.M.L. Sastry, TEM study of B- and Er-containing dispersoids in rapidly solidified dispersion-strengthened titanium and titanium aluminide alloys 37 (1991) 310
characteristics of diffraction contrast images of microtwins 37 (1991) 116
Shuman, H., see Disko 37 (1991) 202
Smith, D.A. and C.W. Allen, Morphology and motion of the interface between amorphous and crystalline cobalt disilicide 37 (1991) 279
Smith, D.J., Z.G. Li, P. Lu, M.R. McCartney and S.-C.Y. Tsen, Characterization of thin films, interfaces and surfaces by high-resolution electron microscopy 37 (1991) 169
Stair, P.C., see Marks 37 (1991) 90
Suenaga, M., see Zhu 37 (1991) 341
Sujata, K., see Lange 37 (1991) 234

Targos, W.M., see Bradley 37 (1991) 210
Tencé, M., see Mory 37 (1991) 191
Tentschert, J., see Fraundorf 37 (1991) 125
Thangaraj, N., K.H. Westmacott and U. Dahmen, HVEM studies of the sintering of MgO nanocrystals prepared by $Mg(OH)_2$ decomposition 37 (1991) 362
Tsen, S.-C.Y., see Smith 37 (1991) 169

Wang, Z.L. and J. Bentley, Z-contrast imaging of bulk crystal surfaces in scanning reflection electron microscopy 37 (1991) 39
Wang, Z.L. and J. Bentley, Imaging and spectroscopy of α-Al_2O_3, diamond, Ni and Fe bulk crystal surfaces 37 (1991) 103
Westmacott, K.H., see Thangaraj 37 (1991) 362

Young, J.F., see Popoola 37 (1991) 318

Zhang, J.P., see Marks 37 (1991) 90
Zhu, Y., M. Suenaga and A.R. Moodenbaugh, Oxygen, diffuse scattering, and TWEED structure in the $YBa_2Cu_3O_{7-\delta}$ system 37 (1991) 341

Subject index to volume 37

Analytical microscopy
Analytical electron microscopy of catalytic materials, *Bradley and Targos* 37 (1991) 210
Observations of wet cement using electron microscopy, *Lange, Sujata and Jennings* 37 (1991) 234

Diffraction and optical diffraction
On the symmetry characteristics of diffraction contrast images of microtwins, *Sheinin and Kim* 37 (1991) 116

Electron energy loss spectroscopy
Experimental investigation of the ultimate EELS spatial resolution, *Mory, Kohl, Tencé and Colliex* 37 (1991) 191
Energy-loss near-edge fine structure and compositional profiles of cryomilled oxide-dispersion-strengthened aluminum, *Disko, Luton and Shuman* 37 (1991) 202

High resolution
High-resolution *Z*-contrast imaging of crystals, *Pennycook and Jesson* 37 (1991) 14
Z-contrast imaging of bulk crystal surfaces in scanning reflection electron microscopy, *Wang and Bentley* 37 (1991) 39
Imaging with high-angle scattered electrons and secondary electrons in the STEM, *Liu and Cowley* 37 (1991) 50
Algorithms for Bayesian background-subtracted Fourier darkfield imaging, *Fraundorf and Pollack* 37 (1991) 72
High-resolution electron microscopy of interfaces in fcc materials, *Merkle* 37 (1991) 130
High-resolution electron microscopy of BN on MgO: a model ceramic–ceramic interface, *Allard, Datye, Nolan, Mahan and Paine* 37 (1991) 153
Characterization of thin films, interfaces and surfaces by high-resolution electron microscopy, *Smith, Li, Lu, McCartney and Tsen* 37 (1991) 169
High-resolution electron microscopy observations of faceted grain boundaries and twins in bismuth-doped copper, *Luzzi* 37 (1991) 180
The theory and practice of high-resolution scanning electron microscopy, *Joy* 37 (1991) 216
High-resolution electron microscopy and microchemical characterization of a polyvinyl alcohol acetate/calcium aluminate composite (macro-defect-free cement), *Popoola, Kriven and Young* 37 (1991) 318

Imaging
High-resolution *Z*-contrast imaging of crystals, *Pennycook and Jesson* 37 (1991) 14
Z-contrast imaging of bulk crystal surfaces in scanning reflection electron microscopy, *Wang and Bentley* 37 (1991) 39
On the symmetry characteristics of diffraction contrast images of microtwins, *Sheinin and Kim* 37 (1991) 116

Methods and techniques
Frontiers of electron microscopy in materials science, *Hirsch* 37 (1991) 1
A new in situ technique for studying deformation and fracture in thin film ductile/brittle laminates, *Hackney and Milligan* 37 (1991) 79
HVEM studies of the sintering of MgO nanocrystals prepared by $Mg(OH)_2$ decomposition, *Thangaraj, Westmacott and Dahmen* 37 (1991) 362

New developments
Frontiers of electron microscopy in materials science, *Hirsch* 37 (1991) 1

Reflection electron microscopy, high-energy electron diffraction
Z-contrast imaging of bulk crystal surfaces in scanning reflection electron microscopy, *Wang and Bentley* 37 (1991) 39

Scanning electron microscopy
The theory and practice of high-resolution scanning electron microscopy, *Joy* 37 (1991) 216
Scanning electron microscopy of tribochemical films on Si_3N_4 to H_2O at high temperatures, *Danyluk, Park and McNallan* 37 (1991) 239

Scanning transmission electron microscopy
Imaging with high-angle scattered electrons and secondary electrons in the STEM, *Liu and Cowley* 37 (1991) 50

Elsevier Science Publishers B.V. (North-Holland)

The instrument response function in air-based scanning tunneling microscopy, *Fraundorf and Tentschert* 37 (1991) 125

Specimen preparation

HVEM studies of the sintering of MgO nanocrystals prepared by $Mg(OH)_2$ decomposition, *Thangaraj, Westmacott and Dahmen* 37 (1991) 362

Surfaces, clusters, interfaces and particles

A new in situ technique for studying deformation and fracture in thin film ductile/brittle laminates, *Hackney and Milligan* 37 (1991) 79

UHV microscopy of surfaces, *Marks, Ai, Bonevich, Buckett, Dunn, Zhang, Jacobi and Stair* 37 (1991) 90

Imaging and spectroscopy of α-Al_2O_3, diamond, Ni and Fe bulk crystal surfaces, *Wang and Bentley* 37 (1991) 103

High-resolution electron microscopy of interfaces in fcc materials, *Merkle* 37 (1991) 130

High-resolution electron microscopy of BN on MgO: a model ceramic–ceramic interface, *Allard, Datye, Nolan, Mahan and Paine* 37 (1991) 153

Characterization of thin films, interfaces and surfaces by high-resolution electron microscopy, *Smith, Li, Lu, McCartney and Tsen* 37 (1991) 169

vations of faceted grain boundaries and twins in bismuth-doped copper, *Luzzi* 37 (1991) 180

Chemical composition and lattice relaxations at diffusion-bonded Nb/Al_2O_3 interfaces, *Knauss and Mader* 37 (1991) 247

Microstructural characterization of a creep-deformed SiC whisker-reinforced Si_3N_4, *More, Koester and Davis* 37 (1991) 263

Morphology and motion of the interface between amorphous and crystalline cobalt disilicide, *Smith and Allen* 37 (1991) 279

Cross-sectional transmission electron microscopy study of phase transformations at TiN film/steel substrate interfaces, *Erdemir and Cheng* 37 (1991) 286

On the origins of ghost boundaries during in situ strain-induced grain-boundary migration, *Lillo, Hackney and Plichta* 37 (1991) 294

TEM study of B- and Er-containing dispersoids in rapidly solidified dispersion-strengthened titanium and titanium aluminide alloys, *Schwartz, Fraundorf and Sastry* 37 (1991) 310

[001] tilt grain boundaries in $YBa_2Cu_3O_{7-x}$ thin films, *Gao, Merkle, Bai, Chang and Lam* 37 (1991) 326

Oxygen, diffuse scattering, and TWEED structure in the $YBa_2Cu_3O_{7-\delta}$ system, *Zhu, Suenaga and Moodenbaugh* 37 (1991) 341

TEM characterization of modulated microstructures in $CaO–Dy_2O_3$ solid solutions, *Kim and Kriven* 37 (1991) 351